



ARARs Q's & A's: General Policy, RCRA, CWA, SDWA, Post-ROD Information, and Contingent Waivers

Office of Emergency and Remedial Response
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Quick Reference Fact Sheet

Section 121(d)(2) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended by the 1986 Superfund Amendments and Reauthorization Act (SARA), requires that on-site remedial actions must attain (or waive) Federal and more stringent State applicable or relevant and appropriate requirements (ARARs) of environmental laws upon completion of the remedial action. The revised National Contingency Plan of 1990 (NCP) requires compliance with ARARs during remedial actions as well as at completion, and compels attainment of ARARs during removal actions to the extent practicable, considering the exigencies of the situation. See the NCP, 40 CFR section 300.415(i) (55 FR 8666, 8843) and section 300.435(b)(2) (55 FR 8666, 8852) (March 8, 1990).

To implement the ARARs provision, EPA has developed guidance, CERCLA Compliance With Other Laws Manual: Parts I and II (Publications 9234.1-01 and 9234.1-02), and has provided training to Regions and States on the identification of and compliance with ARARs. These "ARARs Q's and A's" are part of a series of Fact Sheets that provide guidance on a number of questions that arose in developing ARAR policies, in ARARs training sessions, and in identifying and complying with ARARs at specific sites. This particular Q's and A's Fact Sheet, **which updates and replaces a Fact Sheet first issued in May 1989**, addresses the ARARs general policy; compliance with the Resource Conservation and Recovery Act (RCRA), the Clean Water Act (CWA), and the Safe Drinking Water Act (SDWA); Post-ROD Information and Administrative Record requirements; and "contingency" waivers of ARARs.

I. General Policy

Q1. What difference does it make whether a requirement is "applicable" or "relevant and appropriate"? Why make that distinction?

A. It is true that once a requirement is determined to be relevant and appropriate, it must be complied with as if it were applicable. However, there are significant differences between the identification and analysis of the two types of requirements (see **Highlight 1**). "Applicability" is a legal and jurisdictional determination, while the determination of "relevant and appropriate" relies on professional judgment, considering environmental and technical factors at the site. There is more flexibility in the relevance and appropriateness determination: a requirement may be "relevant," in that it covers situations similar to that at the site, but may not be "appropriate" to apply for various reasons and, therefore, not well suited to the site. In some situations, only portions of a requirement or regulation may be judged relevant and appropriate; if a requirement is applicable, however, all substantive parts must be followed. (See Overview of ARARs: Focus on ARAR Waivers, Publication 9234.2-03/FS, December 1989, for further discussion on compliance with ARARs.)

For example, if closure requirements under Subtitle C of RCRA are applicable (e.g., at a landfill that received RCRA hazardous waste after 1980 or where the Superfund action constitutes disposal of hazardous waste), the landfill must be closed in compliance with one of the closure options available in Subtitle C regulations. These options are closure by removal (clean closure), which requires decontamination to health-based levels, or closure with waste in place (landfill closure), which requires impermeable caps and long-term maintenance.

However, if Subtitle C closure requirements are not applicable, but are determined to be relevant and appropriate, then a "hybrid closure," which includes other types of closure designs, may also be used. The hybrid closure option arises from a determination that only certain closure requirements in the two Subtitle C closure alternatives are relevant and appropriate. (See proposed NCP, 53 FR at 51446, and preamble to the NCP, 55 FR at 8743, for further discussion of RCRA closure requirements and the concept of hybrid closure.)

**Highlight 1: DEFINITIONS OF "APPLICABLE"
AND "RELEVANT AND APPROPRIATE"**

"Applicable requirements mean those cleanup standards, standards of control, and other substantive environmental protection requirements, criteria, or limitations promulgated under Federal environmental or State environmental or facility siting law that specifically address a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstance at a CERCLA site."

[Section 300.5 of the NCP, 55 FR at 8814] In other words, an applicable requirement is one with which a private party would have to comply by law if the same action was being undertaken apart from CERCLA authority. All jurisdictional prerequisites of the requirement must be met in order for the requirement to be applicable.

If a requirement is not applicable, it still may be relevant and appropriate. **"Relevant and appropriate requirements** mean those cleanup standards [that] ... address problems or situations sufficiently similar to those encountered at the CERCLA site that their use is well suited to the particular site." [Section 300.5 of the NCP, 55 FR at 8817] A requirement that is relevant and appropriate may "miss" on one or more jurisdictional prerequisites for applicability but still make sense at the site, given the circumstances of the site and release.

Q2. Does an applicable requirement take precedence over one that is relevant and appropriate? In other words, if an applicable requirement is available, will that be the ARAR, rather than one that might otherwise be relevant and appropriate?

- A. No, a requirement may be relevant and appropriate even if another requirement legally applies to that situation, particularly when the applicable requirement was not really intended to address the type or magnitude of problems encountered at Superfund sites. For example, RCRA Subtitle D requirements for covers for solid waste facilities may be applicable when RCRA hazardous waste is not present at the site. However, the soil cover required under Subtitle D may not always be sufficient to limit leachate at a Superfund site that has substantial amounts of waste similar to RCRA hazardous waste. In such a situation, some Subtitle C closure requirements may be relevant and appropriate to some parts of the site, even though Subtitle D requirements legally apply.

However, one factor that affects whether a requirement is relevant and appropriate is whether another requirement exists that more fully matches the circumstances at the site. In some cases, this might be a requirement that was directly intended for,

and is applicable to, the particular situation. For example, Federal Water Quality Criteria generally will not be relevant and appropriate and, therefore, not ARAR when there is an applicable State Water Quality Standard promulgated specifically for the pollutant and water body, which therefore "more fully matches" the situation. (See Overview of ARARs: Focus on ARAR Waivers, Publication 9234.2-03/FS, December 1989, for further discussion on compliance with ARARs, and CERCLA Compliance With the CWA and SDWA, Publication 9234.2-06/FS, February 1990, for additional discussion on the resolution of potentially conflicting water ARARs.)

Q3. Is compliance with ARARs required for a "no action" decision?

- A. No. CERCLA Section 121 cleanup standards, including compliance with ARARs, apply only to remedial actions that the Agency determines should be taken under CERCLA Sections 104 and 106 authority. A "no action" decision can only be made when no remedial action is necessary to reduce, control, or mitigate exposure because the site or portion of the site is already protective of human health and the environment. See Guidance on Preparing Superfund Decision Documents (OSWER Directive 9355.3-02) for further discussion of "no action" decisions.

Q4. Does an ARAR always have to be met, even if it is not necessary to ensure protectiveness?

- A. Yes, unless one of the six waivers can be used. Attainment of ARARs is a "threshold requirement" in SARA, as is the requirement that the remedies be protective of human health and the environment. If a requirement is applicable or relevant and appropriate, it must be met, unless an ARAR waiver can be used. ARARs represent the minimum that a remedy must attain; it may sometimes be necessary, where there are multiple contaminants with potentially cumulative or synergistic effects, to go beyond what ARARs require to ensure that a remedy is protective. (See Overview of ARARs: Focus on ARAR Waivers, Publication 9234.2-03/FS, December 1989 for further discussion on compliance with ARARs.)

Q5. If wastes from non-contiguous facilities are combined on one site for treatment, is the treatment viewed as off-site activity, and the unit therefore subject to permitting?

- A. No. Because the combined remedial action constitutes on-site action, compliance with permitting or other administrative requirements would not be required (see **Highlight 2**). CERCLA Section 104(d)(4) authorizes EPA to treat two or more non-contiguous facilities as one site for purposes of response, if such facilities are reasonably related on

Highlight 2: ON-SITE VS. OFF-SITE ACTIONS

The requirements under CERCLA for compliance with other laws differ in two significant ways for on-site and off-site actions. **First, the ARARs provision applies only to on-site actions; off-site actions must comply fully only with any laws that legally apply to that action.** Therefore, off-site actions need only comply with "applicable" requirements, not with "relevant and appropriate" requirements; ARAR waivers are not available for requirements that apply to off-site actions.

Second, on-site actions must comply only with the substantive portions of a given requirement; on-site activities need not comply with administrative requirements, such as obtaining a permit or record-keeping and reporting. (Monitoring requirements are considered substantive requirements.) Off-site actions must comply with both substantive and administrative requirements of all applicable laws.

[Note: ARARs are the requirements of environmental and facility siting laws only. Independent of ARARs, on-site activities also must comply with applicable requirements of non-environmental laws (e.g., building codes and safety requirements), excluding permit requirements.]

the basis of geography or their potential threat to public health, welfare, or the environment. In keeping with the statutory criteria under CERCLA Section 121(b), combining facilities as one site for remedial action must also be shown to be cost-effective and not result in any significant additional short-term impacts on public health and the environment. (See preamble to the NCP, 55 FR at 8690-8691; Interim RCRA/CERCLA Guidance on Non-Contiguous Sites and On-Site Management of Waste Residue, OSWER Directive 9347.0-1, March 1986; and 49 FR at 37076, September 21, 1984.)

Q6. Are environmental resource laws, such as the Endangered Species Act, the National Historic Preservation Act (NHPA), and the Wild and Scenic Rivers Act, potential ARARs for CERCLA actions?

A. Yes, requirements in these laws are potential ARARs. However, these laws frequently require consultation with, and under some laws, concurrence of, other Agencies or groups, such as the Fish and Wildlife Service or the Advisory Council on Historic Preservation. Administrative requirements such as consultation or obtaining approval are not required for on-site actions. However, it is strongly recommended that the lead agency nevertheless consult with the administering agencies to ensure compliance with substantive requirements, e.g., the NHPA requirement that actions must avoid or minimize impacts on cultural resources. (See preamble to the NCP, 55 FR at 8757. Also, see Summary of Part II: CAA, TSCA, and Other Statutes, Publication 9234.2-07/FS, April 1990, for further discussion of resource protection laws.)

Q7. Are environmental standards and requirements of Indian Tribes potential ARARs?

A. Yes. Indian Tribal requirements are potential ARARs for CERCLA actions taken on Tribal lands and are treated consistently with State requirements. Tribal requirements that meet the eligibility criteria for State ARARs, i.e., those that are promulgated (legally enforceable and of general applicability), are more stringent than Federal requirements, and are identified in a timely manner, are potential ARARs. (See preamble to the NCP, 55 FR at 8741-8742; section 300.5 of the NCP, 55 FR at 8816 for a definition of Indian Tribe; and the Revised Interim Final Guidance on Indian Involvement in the Superfund Program, OSWER Directive 9375.5-02A, November 28, 1989.)

II. Resource Conservation and Recovery Act (RCRA)

Q8. How can RCRA listed waste be "delisted" when wastes will remain on-site?

A. By documenting in the ROD that the substantive requirements in RCRA for delisting have been met, a RCRA listed waste may be "delisted" when wastes remain on-site.

Once a listed waste is "delisted," it is no longer considered a "hazardous waste" and is, therefore, subject to RCRA Subtitle D requirements for solid waste, rather than the more stringent RCRA Subtitle C requirements.

The substantive requirements that must be met for delisting a RCRA hazardous waste that will remain on-site are the standards in 40 CFR sections 260.22(a)(1) and (2), which state that a waste that "does not meet any of the criteria under which the waste was listed as hazardous or an acutely hazardous waste" and for which there is no "reasonable basis to believe that factors (including other constituents) other than those for which the waste was listed could cause the waste to be a hazardous waste" is "delistable." Administrative requirements, which include requirements to undergo a petition and rulemaking process and to develop and supply specific

information, need not be met on-site. (See A Guide to Delisting of RCRA Wastes for Superfund Remedial Responses, Publication 9347.3-09/FS, September 1990.)

Wastes containing constituents at health-based levels, assuming direct exposure, generally will meet the standards for delisting. Wastes with constituents at higher levels may also be delistable, since the RCRA delisting process allows fate-and-transport modeling, generally based on the waste being managed in a solid waste unit. The models used by the RCRA program for delisting are recommended for use in determining whether constituent concentrations above health-based levels are delistable, e.g., for wastes that will be land disposed (See 50 FR 48886, November 27, 1985 and 51 FR 41082, November 13, 1986). The Waste Identification Branch in the Office of Solid Waste (FIS 382-4770) can also provide assistance and advice in delisting a waste.

Substantive requirements for a waste to meet delisting levels should be documented in the RI/FS and the ROD, and a general discussion of why delisting is warranted should be included (see A Guide to Delisting of RCRA Wastes for Superfund Remedial Responses, Publication 9347.3-09/FS, September 1990). Generally, the constituent levels that must be achieved in order for the waste to be considered non-hazardous should be identified in the ROD. Unless treatability studies done during the RI/FS make delisting reasonably certain, the ROD should also address, as a contingency, how the waste will be handled if it does not achieve delistable levels, based on full-scale treatability studies or actual performance of the remedy during RD/RA. If the waste cannot be delisted, and this contingency is expressly noted in the ROD, a fact sheet may be needed to notify the public that the contingency remedy will be implemented.

Q9. Are RCRA financial responsibility requirements potential ARARs for Superfund?

- A. No, because they are considered to be administrative requirements, not substantive environmental requirements. RCRA financial responsibility requirements support implementation of RCRA technical standards by ensuring that RCRA facility owners or operators have the financial resources available to address releases and comply with closure and post-closure requirements. CERCLA agreements with PRPs and, ultimately, the Fund itself, achieve essentially the same purpose.

Q10. RCRA hazardous waste is placed into an existing pit that had received hazardous waste in the past, but is not subject to RCRA Subtitle C regulations because the pit closed before 1980. Would the minimum technology requirements (MTR) be applicable?

- A. Yes; although the pit is not considered a "new unit," all surface impoundments (i.e., both new and existing) are subject to MTR if they receive hazardous wastes (i.e., wastes that were hazardous as of November 7, 1984) after November 1988. In addition, the land disposal restrictions (LDRs) prohibit placement of restricted wastes (which are under a national capacity variance) in landfills or surface impoundments that are not in compliance with MTR. If such a waste is placed in the existing waste pit, the pit would have to comply with MTR, even though it is not a "new unit." See Superfund LDR Guide #3: Treatment Standards and Minimum Technology Requirements Under Land Disposal Restrictions (LDRs), Publication 9347.3-03/FS, July 1989.

III. Clean Water Act (CWA) & Safe Drinking Water Act (SDWA)

Q11. Do antidegradation laws for ground water, which are increasingly common in State laws, mean that the aquifer must be restored to its original quality before contamination from the site occurred?

- A. In most cases, no. Antidegradation laws are prospective and are intended to prevent further degradation of water quality. At a CERCLA site, therefore, a State ground-water antidegradation law might preclude the injection of partially treated water into a pristine aquifer. It would not, however, require cleanup to the aquifer's original quality prior to contamination. If more stringent State standards than those imposed under Federal law are determined to be ARARs for the site, they would have to be met (e.g., by meeting the discharge requirements) or

waived (e.g., by the interim remedy waiver). Where temporary degradation of the ground water may be required during remedial action, protection should be provided by restricting access or providing institutional controls, and EPA response actions should ultimately result in restoration of the ground water's beneficial uses. (See ARARs Q's & A's: State Ground-Water Antidegradation Issues, Publication 9234.2-11/FS, July 1990.)

Q12. There are some situations where an aquifer that is a current or potential drinking-water source, treatable to MCLs at the tap, cannot be remediated to non-zero MCLGs or MCLs in the aquifer. Would non-zero MCLGs or MCLs still be relevant and appropriate?

- A. In general, yes. The non-zero MCLGs and, if none, the MCLs, are generally relevant and appropriate for any aquifer that is a potential drinking-water source (see **Highlight 3**) (see section 300.430(e)(2)(i)(B)-(D) of the NCP, 55 FR at 8848). If they cannot be attained (e.g., because of complex hydrogeology due to fractured bedrock), an ARAR waiver for technical impracticability should be used. If attainment of a non-zero MCLG or MCL is impossible because the background level of the chemical subject to CERCLA authority (e.g., a man-made chemical) is higher than that of the MCLG or MCL, attainment of the MCLG or MCL would not be relevant and appropriate. (See CERCLA Compliance With the CWA and SDWA, Publication 9234.2-06/FS, January 1990.)

Highlight 3:
ARARs FOR GROUND-WATER CLEANUP

Non-zero MCLGs, and, if none, MCLs promulgated under SDWA, generally will be the relevant and appropriate standard for ground water that is or may be used for drinking, considering its use, value, and vulnerability as described in the EPA's Ground-Water Protection Strategy (August 1984), e.g., for Class I and II aquifers.

Q13. Many new MCLGs and MCLs will be promulgated or existing ones revised in upcoming years. Will new or revised MCLGs and MCLs, when promulgated, need to be incorporated into the remedy, possibly altering it? Should a proposed non-zero MCLG or MCL be used as the remediation goal in the ROD?

- A. Under the NCP, if a new requirement is promulgated after the ROD is signed, and the requirement is determined to be applicable or relevant and appropriate, the remedy should be examined in light of the new requirement (at the 5-year review or earlier) to ensure that the remedy is still protective. If the remedy is still protective, it would not have to be modified, even though it does not meet the new requirement. Since non-zero MCLGs and MCLs often are a key component in defining remediation levels, new or revised MCLGs and MCLs may reveal that the chosen remedy is not protective. In such cases, the remedy would have to be modified accordingly. This could occur at any time after the ROD is signed -- during remedial design, remedial action, or at the 5-year review.

However, a new non-zero MCLG or MCL usually will not mean the remedy must be changed. If the existing remedy is still within the risk range, even considering the new MCLG or MCL, the remedy would not have to be modified because the remedy is still protective. For example, if the new non-zero MCLG or MCL represents a risk of 10^{-6} , while the selected remediation level results in a 10^{-5} risk, the remedy is still considered protective.

At some sites, however, a new MCLG or MCL could require modification to the remedy after implementation of the remedy has begun. Therefore, if a proposed non-zero MCLG or MCL is available before the ROD is signed, the preferred remedy should be evaluated to determine how the MCLG or MCL, if promulgated as proposed, would affect the remedy. Will the preferred remedy achieve the proposed MCLG or MCL? Could the remedy achieve the proposed MCLG or MCL with minor design modifications? Would the proposed MCLG or MCL require significant changes, such as requiring remediation in ground water that is currently deemed fully protective?

The proposed non-zero MCLG or MCL may be used as a "to-be-considered" (TBC) in establishing a protective remediation level in the ROD, provided that: (1) the new standard would make a remedy based on the current standard unprotective; and (2) the proposed standard is not controversial or otherwise is unlikely to change. This reflects the importance of non-zero MCLGs and MCLs in Superfund's determination of protectiveness and as a cleanup standard for the community. It also minimizes the need for later changes to the remedy when changes may be more difficult and costly to make. (See CERCLA Compliance With the CWA and SDWA, Publication 9234.2-06/FS, January 1990.)

Note: In the May 1989 version of this fact sheet, Question 14 addressed the use of the 10^{-6} risk level when non-zero MCLGs or MCLs exist for some, but not all, significant contaminants. Question 14 has been omitted from this fact sheet because this issue is currently being clarified by the Agency. Final resolution of this issue will be addressed in guidance in the near future.